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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/573,230

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Masaaki Ino

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EXAMINER

KARPINSKI, LUKE E

ART UNIT

PAPER NUMBER

1616

MAIL DATE

DELIVERY MODE

06/23/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/573,230	<b>Applicant(s)</b> INO ET AL.	
	<b>Examiner</b> LUKE E. KARPINSKI	<b>Art Unit</b> 1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 8/7/2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 5-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Change in Examiner***

Examination of this application will further be conducted by Luke Karpinski; contact information can be found at the end of this action.

Receipt of amendments, arguments, and remarks filed 8/07/2008 is acknowledged.

### ***Claims***

Claims 1-4 are canceled.

Claim 5 is amended.

Claims 13-22 are new.

Claims 5-22 are currently pending and under consideration in this action.

### ***Rejections***

Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.

***New Rejections***

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Applicant Claims
2. Determining the scope and contents of the prior art.
3. Ascertaining the differences between the prior art and the claims at issue, and resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**1. Claims 5-22 are rejected under 35 U.S.C. 103(a)** as being unpatentable over US Patent 5,415,131 to Dodman in view of US Patent 6,444,742 to Rong et al. and “Zeolites as Pheromone Dispensers” to Munoz-Pallares.

### ***Applicant Claims***

Applicant claims a formulation comprising a pheromone and a substrate prepared by firing a crystalline mineral at 500-700 degrees C. for 5-120 minutes.

Applicant further claims percentages of said pheromones, specific substrates, and a time period of 30-60 minutes.

### ***Determination of the Scope and Content of the Prior Art (MPEP §2141.01)***

Dodman teaches absorbent substances such as montmorillonite, palygorskite, and sepiolite (col. 5-6, table 2), in combination with pheromones (Abstract, and cols. 2 and 8), present at 5% (col. 7), as pertaining to claims 5-16.

### ***Ascertainment of the Difference between Scope the Prior Art and the Claims (MPEP §2141.012)***

Dodman does not teach that said crystalline minerals are fired as claimed in claims 5 and 17-22. This deficiency in Dodman is cured by the combination of Rong et al and Munoz-Pallares. Rong et al. teach steps for the calcining sepiolite-palygorskite clays for 0.5-10 hours at 300-850 degrees C. (col. 2, summary). Munoz-Pallares teach that the utilization of zeolites, which reads on the crystalline minerals claimed, are well

Art Unit: 1616

known to be utilized as controlled release dispensers for pheromones (page 4801-4802), that the Si/Al ratio affects release kinetics (page 4804, results and discussion, second paragraph, and page 4806, right column second paragraph), and calcining said compounds removes aluminum (page 4805, right column first paragraph).

***Finding of Prima Facie Obviousness Rational and Motivation***

***(MPEP §2142-2143)***

Regarding the limitation of firing said crystalline minerals, it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to heat the compounds of Dodson to 300-850 degrees C. for 0.5-10 hours as taught by Rong et al. in order to produce the compositions of claim 1.

One of ordinary skill in the art would have been motivated to do this because Munoz-Pallares et al. teach that calcining said components will alter the release kinetics of pheromones. Therefore it would have been obvious to utilize the calcining methods of Rong et al. and Munoz-Pallares et al., with the compounds of Dodson in order to alter the release kinetics of the pheromones found in the compositions of Dodson.

Regarding the limitations of time and temperature, it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to utilize the time and temperature parameters of Rong et al. while heating the compositions of Dodson in order to produce the invention of the instant claims.

One of ordinary skill in the art would have been motivated to do this because Rong et al. teach methods of calcining the same components as utilized in Dodson.

Art Unit: 1616

Therefore it would have been obvious to utilize the known time and temperature parameters of Rong et al., while calcining the formulations of Dodson in order to alter the release kinetics as taught by Munoz-Pallares.

From the teachings of the reference, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

### ***Response to Arguments***

Applicant's arguments with respect to all claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Claims 1-4 are canceled.

Claims 5-22 are rejected.

No claims are allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### ***Inquiries***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LUKE E. KARPINSKI whose telephone number is (571)270-3501. The examiner can normally be reached on Monday Friday 9-5 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann R. Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 1616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LEK

*/Mina Haghighatian/  
Primary Examiner, Art Unit 1616*